

S/056/62/042/002/052/055  
B108/B138

AUTHORS: Azbel', M. Ya., Begiashvili, G. A.

TITLE: Width of cyclotron resonance lines in semimetals and determination of correlation function for bismuth

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 2, 1962, 640-641

TEXT: Resonance line width is usually determined by the corresponding relaxation time. In the case of cyclotron resonance however, the line width is considerably dependent on the Fermi liquid interaction. Earlier studies (M. Ya. Azbel'. ZhETF, 39, 1138, 1960) have shown that  $\omega\tau_{\text{eff}} \sim g$  for  $\omega \sim \omega_1$ , i.e. for  $r \sim \delta_0$  ( $\omega_1 \sim v\omega_0/c$ ,  $r$  - Larmor radius of the electrons,  $\delta_0 \sim c/\omega_0$ ,  $\omega_0$  - plasma frequency of electrons,  $v$  - velocity,  $g \sim \int G dS/v$ ,  $G(\vec{p}, \vec{p}')$  - correlation function). There is no resonance at  $g \sim 1$ . The experiments of J. E. Aubrey and R. G. Chambers (J. Phys. Chem. Solids, 3, 128, 1957) with bismuth (where for "holes"  $\delta/r \sim 2$ ,  $\omega\tau \sim 370$ ) showed a resonance width of the order of unity (but not  $10^{-2}$  as might be concluded

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from  $\omega\tau$ ) which indicates that there is obviously considerable interaction for  $g \sim 1$ . By all evidence this is the first case in which the order of the Fermi liquid interaction in metals could be estimated. It is clear that a more detailed investigation could furnish a clearer picture of the function  $G(\vec{p}, \vec{p}')$ . In this connection it is interesting to find out how the Fermi liquid interaction manifests itself in the case of resonance over the entire frequency region. Necessarily,  $\omega\tau \gg 1$  for resonance so that the skin depth  $\delta \sim \delta_0 \sim c/\omega_0$  and does not depend on  $\omega\tau$ ,  $r \sim v/\omega$ . Two

cases are therefore possible: (1) quite low frequencies,  $\omega \ll \omega_1$ , with cyclotron resonance (this range may perhaps not occur for semimetals, because of the small  $\omega_1$  corresponding to  $\omega_1\tau \ll 1$ ); (2) quite high frequencies,  $\omega \gg \omega_1$ , which is the region of diamagnetic resonance. The results are

$$v_{\text{eff}} \sim \frac{1}{\tau_{\text{eff}}} \sim \begin{cases} \omega_1 (\omega/\omega_1)^2 & \text{(quadratic dispersion)} \\ \omega_1 (\omega/\omega_1)^3 & \text{(non-quadratic dispersion)} \end{cases}$$

for the range of cyclotron resonance, and  
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$$v_{\text{eff}} \sim \frac{1}{\tau_{\text{eff}}} \sim \begin{cases} \omega_1 & (\text{quadratic dispersion}) \\ \omega_1 (\omega_1/\omega) & (\text{non-quadratic dispersion}) \end{cases}$$

for the range of diamagnetic resonance. It is therefore clear that the relative width of the resonance  $1/\omega\tau_{\text{eff}}$  which is due to Fermi liquid interaction has a maximum at  $\omega \sim \omega_1$ . The reason for the Fermi-liquid suppression of resonance not related to any real attenuation and the small value of resonance in nearly all cases is explained without allowing for the fact that interaction itself is by no means small. The point is, that the Fermi liquid interaction leads to an additional spatial dispersion  $\omega = \omega(k)$  with respect to a Fermi gas, where as is easy to see, ✓

$\omega = k\bar{v}_z + q\Omega$ . (It is essential that the distance  $\Delta\Omega$  between the levels is independent of  $k$ ).  $\bar{v}_z$  is the mean velocity of the electrons passing into the metals,  $\Omega$  is the Larmor frequency.  $k$ , which occurs in the impedance if the abnormal skin effect is allowed for, leads to suppression of resonance. The "expansion" of resonance, however, is not small only for  $kr \sim r/\delta \sim 1$  since the spatial dispersion at normal spin

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effect is small owing to the inequality  $kr \ll 1$ . For this reason  $\omega(k)$  can be split up. In the abnormal skin effect resonance is possible only in a magnetic field parallel to the surface of the metal, where  $\vec{v}_z = 0$  and where  $\omega$  is finite when  $k \rightarrow \infty$  so that  $\omega(k)$  can be expanded in terms of  $1/kr$ . I. M. Lifshits is thanked for discussions. [Abstracter's note: Complete translation.] There are 2 references: 1 Soviet and 1 non-Soviet.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk Ukrainской SSR (Physicotechnical Institute of the Academy of Sciences of the Ukrainskaya SSR). Institut kibernetiki Akademii nauk Gruzinskoy SSR (Institute of Cybernetics of the Academy of Sciences of the Gruzinskaya SSR)

SUBMITTED: December 13, 1961

Card 4/4

BEGIASHVILI, G. A.

Theory of an anomalous skin effect in thin metal films in  
magnetic fields. Fis. met. i metalloved. 14 no.4:481-486  
0 '62. (MIRA 15:10)

1. Institut kibernetiki AN Gruzinskoy SSR.

(Metallic films—Magnetic properties)

L 17285-63 EWT(1)/EWG(k)/BDS/EEC(b)-2/ES(w)-2 AFPTC/ASD/ESD-3/  
AFWL/IJP(G)/ESD ---Pz-4/Pab-4/Pi-4/Po-4 AT  
ACCESSION NR: AP3004385 S/0109/63/008/008/1486/1488

80

AUTHOR: Begiasvili, G. A.; Monin, Yu. S.

TITLE: Oscillations in confined plasma 21

SOURCE: Radiotekhnika i elektronika, v. 8, no. 8, 1963, 1486-1488

TOPIC TAGS: plasma, plasma oscillation

ABSTRACT: A mathematical analysis is offered of phenomena in a plasma confined between infinite parallel solid plates in an external magnetic field. An alternating electric field between the plates is set up by an external source (plasma capacitor). "The authors are thankful to K. N. Stepanov for his attention to the work." Orig. art. has: 10 formulas.

ASSOCIATION: none

SUBMITTED: 01Oct62

DATE ACQ: 20Aug63

ENCL: 00

SUB CODE: PH

NO REF SOV: 007

OTHER: 000

Card 1/1

L 40953-65 ENT(1)/ENT(m)/EPF(n)-2/ENG(m)/EWA(d)/EPA(w)-2/ETP(t)/ETP(z)/ETP(b)  
P-5/P-4/Pab-10/P1-4 LTP(c) JD/WM/AT

ACCESSION NR: AP5006335

S/0126/65/019/002/0284/0286

61  
60

AUTHOR: Begiasvili, G. A.

TITLE: Plasma oscillations in metal single crystal films

SOURCE: Fizika metallov i metallovedeniye, v 19, no. 2, 1965, 284-286

TOPIC TAGS: plasma oscillation, single crystal, permeability, dielectric permeability

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ABSTRACT: Although "volumetric" oscillations in the infinite case and so-called "surface" oscillations in the semi-bounded case have been studied, the author deemed it interesting to study plasma oscillations in bounded samples since in this case losses in the energy of the electrons passing through metallic films can be observed. These losses are associated with the excitation of natural oscillations in a plasma of finite dimensions. In this report the plasma oscillations in single crystal metal films are examined using the dielectric permeability tensor previously derived (Kulik, I. O., ZhETF, 1962, 42, 543). The dispersion of the plasma waves in uniaxial single crystal films is mathematically determined. "The author is grateful to M. Ya. Azbel' for interest in the work." Orig. art. has:

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ACCESSION NR: AP5006335

13 equations.

ASSOCIATION: Institut kibernetiki AN GSSR (Institute of Cybernetics, AN GSSR)

SUBMITTED: 18May64

ENCL: 00

SUB CODE: ME, M M

NO REF SOV: 002

OTHER: 000

Card 2/2



BEGIASHVILI, G.A.

Theory of resonance effects in metals (effect of the  
Fermi-liquid interaction). Fiz.-met. i metalloved. 20  
no.5:642-646 N '65. (MIRA 18:12)

1. Institut kibernetiki AN Gruzinskoy SSR. Submitted  
December 25, 1964.

ACC NR: AP6010434

SOURCE CODE: UR/0386/66/003/005/0201/0205

AUTHOR: Azbel', M. Ya.; Begiashvili, G. A.

ORG: Institute of Cybernetics, Academy of Sciences, Georgian SSR (Institut kibernetiki Akademii nauk Gruzinskoy SSR)

TITLE: Contribution to the theory of quantum oscillations of surface impedance

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 5, 1966, 201-205

TOPIC TAGS: quantum oscillation, surface property, electric impedance, diamagnetism, conduction electron, magnetic moment, kinetic equation

ABSTRACT: The article deals with the quantum oscillations of both the thermodynamic and kinetic quantities which are due to diamagnetic Landau-level quantization of the electron energies at temperatures that are low compared with the Fermi degeneracy temperature, and which can be quite large in sufficiently strong magnetic fields. At alternating electromagnetic fields and in a quantizing constant magnetic field these reduced to a single quantity, the total surface impedance. The authors estimate the contributions made to these oscillations by the nonrelativistic oscillations of the conduction current and by the relativistic oscillations of the magnetic moment, which are essentially of a different order of magnitude. It is shown that at low frequencies the surface-impedance oscillations are determined essentially by the de Haas--van Alphen effect, and the relative amplitude of the impedance oscillations

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ACC NR: AP6010434

is proportional to  $\chi^{-1/2}$  ( $\chi$  -- magnetic susceptibility). With increasing frequency, the relative role of the oscillations of the magnetic moment decreases, and the surface-impedance oscillations are determined by the Shubnikov--de Haas effect. It is indicated that to construct a consistent theory for the general case it is necessary to combine Maxwell's equations with ordinary boundary conditions and to solve in addition a kinetic equation for the density matrix, for which different approximations must be made at low and high frequencies. The derivation of the exact formulas and comparison with experiment will be reported separately. Orig. art. has: 1 formula.

SUB CODE: 20/ SUBM DATE: 09Jan66/ ORIG REF: 007/ OTH REF: 001

Card 2/2 ULR

L 41093-66 EWI(1)/FBD/ERC(k)-2/EWP(k)/T IJP(c) WG

ACC NR: AP6025964

SOURCE CODE: UR/0051/66/021/001/0111/0113

AUTHOR: Bagiashvili, G. A.; Monin, Yu. S.

ORG: none

TITLE: Stimulated emission in inhomogeneous and polycrystalline samples

SOURCE: Optika i spektroskopiya, v. 21, no. 1, 1966, 111-113

TOPIC TAGS: stimulated emission, laser emission, calcium fluoride, polycrystal

ABSTRACT: The effect of the inhomogeneity and polycrystallinity of samples on the production of stimulated emission was studied in connection with a recent report of laser action obtained from polycrystalline  $\text{CaF}_2$  doped with  $\text{Dy}^{2+}$ . To this end, the authors consider a layer of an inhomogeneous active substance placed in a Fabry-Perot resonator. The polarization of the active medium in the high-frequency field of a light wave is assumed to be made up of two parts: polarization of the matrix, and polarization of the active impurities. The inhomogeneities of the medium (i. e., inhomogeneities in the permittivity of the matrix) are macroscopic, and are therefore considered to have no effect on the contribution of the active impurities to the polarization. Expressions which permit a qualitative estimate of the generation threshold are derived for the case of an inhomogeneous isotropic medium and a polycrystal. Orig. art. has: 9 formulas. [27]

SUB CODE: 20/ SUBM DATE: 21Dec65/ ORIG REF: 004/ OTH REF: 003 / ATD PRESS: 5055

Card 1/1 hs

UDC: 621.375.9:535.004.14

L 00901-67 FWT(m)

ACC NR: AP6020994

SOURCE CODE: UR/0251/66/041/002/0301/0307

AUTHOR: Bagiashvili, G. A.; Chavchanidze, O. N.

76  
B

ORG: Institute of Cybernetics, Academy of Sciences Georgian SSR (Institut kibernetiki Akademii nauk Gruzinskoy SSR)

TITLE: Lifetime of excited states in gases

SOURCE: AN GruzSSR. Soobshcheniya, v. 41, no. 2, 1966, 301-307

TOPIC TAGS: excited state, photon, radiation physics, spectral line, Doppler effect,

<sup>gas</sup>  
ABSTRACT: The authors analyze the effect of local photon migration on radiation transfer in gases. An equation is given for nonstationary photon migration in a gas with atoms which have a single resonance level assuming that the diffusion of atoms is negligible in comparison with photon migration, that there are many more excited atoms than unexcited atoms and that the mean free time of the photon is short compared with the lifetime of the excited state. The study is limited to isotropic radiation, and it is shown that consideration to Doppler broadening alone gives strict proportionality in the infinite case between the intensity of the spectral line for the photons emitted from the elementary radiating volume  $P(\nu)$  and the coefficient of absorption on the given frequency  $K(\nu)$ . Analysis of the results shows a lifetime 15-20% higher than that calculated by Holstein without regard to localized reabsorption. Accounting for

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L 00901-67

ACC NR: AP6020994

localized reabsorption of photons does not change the relationship between the effective lifetime of the excited state and pressure. Holstein's assumption of predominance of long-range photon migration is true in this sense. Orig. art. has: 21 formulas.

SUB CODE: 20/ SUBM DATE: 23Feb65/ ORIG REF: 001

2474

Card 2/2

ACC NR: AP6036973 (A, N) SOURCE CODE: UR/0181/66/008/011/3288/3290

AUTHOR: Bagiashvili, G. A.

ORG: Cybernetics Institute, AN GruzSSR, Tbilisi (Institut kibernetiki AN GruzSSR)

TITLE: Buildup of electromagnetic oscillations in antiferromagnetic semiconductors in a strong electric field

SOURCE: Fizika tverdogo tela, v. 8, no. 11, 1966, 3288-3290

TOPIC TAGS: antiferromagnetic material, semiconductor plasma, electromagnetic wave oscillation, plasma wave

ABSTRACT: It is known that in the electron-hole plasma of semiconductors, the drift of carriers in a strong electric field  $E_0$  leads to the buildup of electromagnetic oscillations. The article considers such a drift buildup in uniaxial antiferromagnetic semiconductors, where the magnetic branch of the oscillations is coupled to the plasma branch, as a result of which a series of specific phenomena arise during the buildup in these media. The buildup of low-frequency oscillations in the range of the normal Doppler effect is considered, when  $\omega \ll \nu$ ,  $\omega \gg kv_0$  ( $\nu$  being the collision frequency,  $v_0$  the drift velocity,  $k$  the wave vector, and  $\omega$  the frequency of the oscillations under consideration), the oscillations being propagated at right angles to the direction of drift. It is shown that the "intermingling" of waves causes a decrease of the increment (frequency) of a plasma wave. Orig. art. has: 11 formulas.

SUB CODE: 20/ SUBM DATE: 16May66/ ORIG REF: 003/ OTH REF: 002  
Card 1/1

BEGIASHVILI, T. V.

"The Condition of Arteriovenous Anastomosis During the Disruption of Local Blood Circulation." Cand Med Sci, Tbilisi State Medical Inst, Tbilisi, 1953. (RZhBiol, No 6, Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

80: Sum. No. 521, 2 Jun 55



GEDEVANISHVILI, I.D.; BEGIASHVILI, T.V. (Tbilisi)

Characteristics of the vasodilative action of acetylcholine on the peripheral vessels and arterio-venous anastomoses in the ear of white mice. Pat.fiziol.i eksp.terap.4 no.4:21-25 J1-Ag '60.  
(MIRA 14:5)

1. Iz laboratorii fiziologii cheloveka i zivotnykh (zav. - dotsent I.D.Gedevanishvili) Tbilisskogo gosudarstvennogo pedagogicheskogo instituta imeni A.S.Pushkina.

(CHOLINE)

(BLOOD VESSELS)

BEGIC, S.

Manchester operation in the treatment of genital prolapse. Observations on 103 cases. Acta chir.iugosl. 7(8) no.2:115-126 '60.

1. Ginekološko-porodajni odjel Zdravstvenog centra u Slav. Brodu  
(Sef dr Svetozor Begic)  
(UTERINE PROLAPSE surg)

REGIC, Zvonimir, Jr (Beograd, Stanoja Stanojevic 7)

Togetheress and cooperation of various economic organizations in the building industry. Tehnika Jug 18 no.9:Suppl.:Gradevinarstvo 17 no.9:1637-1640 S '63.

1. Savetnik u Savetu za gradevinarstvo Savezne privredne komore, Beograd.

BEGIC, Zvonko, dipl. ins.

Traction springs with initial tension, and their  
application. Strojarstvo 6 no.3/m:40-44 '64.

BEGICHEV, B. (Sverdlovsk); OSYATINSKAYA, A.; MIKHAYLOVA, L. (Moskva)

Discussing the draft of the Basic Principles of Labor Law of the  
U.S.S.R. and the union Republics. Sots.trud 5 no.2:41-47 F  
'60. (MIRA 13:6)

1. Zaveduyushchaya otделom truda i zarabotnoy platy Leningradskogo  
obkoma profsoyuza rabochikh stroitel'stva i promyshlennosti  
stroitel'nykh materialov.  
(Labor laws and legislation)

REGICHEV, S.

Making use of internal resources. Okh. truda i sots. strakh. no.6:35-36  
Je '59. (MIRA 12:10)

1. Nachal'nik otdela truda i zarplaty Yefremovskogo zavoda sinteticheskogo  
kauchuka im. akademika S.V. Lebedeva, g. Yefremov.  
(Yefremov--Chemical industries)

BODRIKOV, I.M., ed.; GOLOVANOV, A.L., redaktor; BEGICHEV, V.G., inzhener;  
BERESLAVSKIY, Ya.M., inzhener; ZAK, G.I., inzhener; SOLOVUB, A.D., inzhener;  
TANTSMAN, A.I., inzhener; TIKHONOVA, L.V., inzhener.

[Progressive technology in the building materials industry of the Ministry  
of Railroad Transportation] Peredovaia tekhnologiya v promyshlennosti  
stroitel'nykh materialov MPS. Moskva, Gos. transp. shel-dor. izd-vo, 1952.  
62 p. (MLRA 6:5)

(Building materials)

IVANOV, G.S., kand.tekhn.nauk; BEGICHEV, V.G., inzh.

Using assembly-line methods in making wire-reinforced cross-ties. Trans.stroi. 9 no.12:27-31 D '59.

(MIRA 13:5)

(Assembly-line methods)  
(Railroads--Ties, Concrete)



D'YAKONOV, I.A.; BEGIDOV, S.Kh.

Synthesis of ditertiary acetylenic  $\gamma$ -glycols containing  
cyclopropyl radicals. Vest. LGU 17 no.16:158-159 '62.

(MIRA 15:9)

(Glycols)

(Radicals (Chemistry))

D'YAKONOV, I.A.; BEGIDOV, S.Kh.; DOMAREVA, T.V.

Reaction of dicyclopropyl ketone with magnesium bromoalkyls, and  
synthesis of 1, 1-dicyclopropyl-1, 3-butadiene. Zhur.ob.khim. 31.  
no.10:3479 0 '61. (MIRA 14:10)

1. Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova.  
(Ketone) (Magnesium compounds) (Butadiene)

BEGIDOV, S.Kh.; D'YAKONOV, I.A.; KOROBITSYNA, I.K.

Synthesis and dehydration of di-tertiary  $\gamma$ -glycols containing  
the cyclopropyl radicals. Zhur.ob.khim. 33 no.7:2431 J1 '63.  
(MIRA 16:8)

1. Leningradskiy gosudarstvennyy universitet.  
(Glycols)

BEGIDOV, S.Kh.; DOMAREVA, T.V.; D'YAKONOV, I.A.

Unsaturated hydrocarbons containing a cyclopropyl radical.  
Part 1: 1,1-Dicyclopentyl-1,3-butadiene, 2-cyclopentyl-2,4-  
pentadiene, and 1,1-dicyclopentyl-1-butene. Zhur.ob.khim.  
33 no.10:3426-3433 0 '63. (MIRA 16:11)

1. Leningradskiy gosudarstvennyy universitet.

BEGIDZHANOV, M.

Steel Alloys

Improving the utilization of alloy steels. Za ekon. mat. no. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

1. BEGIDZHANOV, M.
2. USSR 600
4. Nonferrous Metals
7. Order should be made in the storing of and accounting for nonferrous metals,  
Za ekon, mat., No. 1, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

SHAKHRAI, I.; BEGIDZHANOV, M., inzh.

New work norms and labor organization at a machine-tool plant. Sots.  
trud 5 no.4:113-117 Ap '60. (MIRA 13:9)

1. Direktor Kolomenskogo zavoda tyazhelogo stankostroyeniya (for  
Shakhray).  
(Kolumna--Machine-tool industry--Production standards)

BEGIDZHANOV, M. (Moskva); KOSICHKIN, A. (Moskva)

Utilize the potentials of the new bonus system fully. Sots.  
trad. 7 no.7:51-55 J1 '62. (MIRA 15:8)  
(Technological innovations) (Bonus system)



BEGIDZHANOV, M.; BALTRUSHEVICH, I.

Improve the planning of labor productivity indices. Sets. trud 7  
no.11:128-132 N '62. (MIRA 15:12)  
(Azerbaijan—Productivity accounting)

6

BEGIDZHANOV, M.; PIVOVAROV, Ya.

Firms are introducing electronic calculating machines. Sots. trud  
8 no.6:81-87 Je '63. (MIRA 16:9)  
(Leningrad--Instrument industry--Management)  
(Electronic data processing)

BEGIDZHANOV, M.G., red.; ZHUKOV, V.P., red.; LOSEV, A.G., red.

[Scientific organization of labor in working areas;  
practice of the collectives of the Ural Chemical  
Machinery Plant and other enterprises of the Central Urals]  
Nauchnaya organizatsiia truda na rabochikh mestakh; opyt  
kollektivov Uralkhimmashzavoda i drugikh predpriatii Sred-  
nego Urals. Moskva, Profizdat, 1965. 198 p.

(MIRA 18:8)

BEGIDZHANOVA, A.P., kandidat tekhnicheskikh nauk.

Basis of the system of repair sized for aluminum bimetallic bearing  
linings. Trudy VIM 23:94-116 '56. (MLRA 9:11)

(Bearings (Machinery))

D'YACHKOV, A.K., doktor tekhnicheskikh nauk, professor; BUSHE, N.A., kandidat tekhnicheskikh nauk; BEGIDZHANOVA, A.P., kandidat tekhnicheskikh nauk; ABRAMOV, P.G., inzhener; DYOSKINA, V.A., inzhener; LUK'YANCHIKOV, I.K., inzhener.

"Antifriction alloys" by A.I. Shpagin. Reviewed by A.K. D'iachkov and others. Vest. mash. 37 no.7:89-91 J1 '57. (MLRA 10:8)  
(Alloys) (Shpagin, A.I.)

HEGIDZHANOVA, A.P., kand.tekhn.nauk.

Sliding bearings made of plastics. Avt.1 trakt.prom. no.7:42-43  
Jl '57. (MIRA 10:11)

(Bearing industry) (Plastics)

BEGIDZHANOVA, A.P.

113-58-3-13/16

AUTHORS: Begidzhanova, A.P., Candidate of Technical Sciences, Ryzhikova, A.G.

TITLE: Application of Anti-Friction Aluminum Alloys in Engines  
(Primeneniye aluminiiyevykh antifriktsionnykh splavov v dvigatelyakh)

PERIODICAL: Avtomobil'naya Promyshlennost', 1958, Nr 3, pp 41-43 (USSR)

ABSTRACT: Several aluminum alloys have good anti-friction properties. These alloys contain tin, nickel, iron, antimony, lead, copper, manganese, etc. In the USSR and abroad, various alloys, with good anti-friction properties and resistance to aging and wear, have been developed. An anti-friction material for steel-aluminum bushes known as ASM contains aluminum with antimony and a small quantity of magnesium. Aluminum-tin alloys with a content of 6 - 7% of tin were also investigated. Figure 3 shows that the solubility of tin in aluminum, in the solid state, is extremely low. In the solidification of the molten alloy, primary crystals of pure aluminum settle and later the tin solidifies at 229°. At a tin content of 10% in the alloy, the tin is present in

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## Application of Anti-Friction Aluminum Alloys in Engines

the form of a grid surrounding the aluminum grains (Figure 3a). The mechanical properties of alloys with up to 30% tin are not satisfactory, especially at temperatures of 150° C. Experiments were made to improve these properties. It was shown that a careful collection of cooling speeds stops the formation of the grid at a tin content of 15% in the binary alloys, and in alloys with 2 - 3% copper, at a tin content of 20%. Forging, or an equivalent deformation process, leads to a recrystallization and redistribution of the aluminum. The tin becomes to a certain degree spheroidized (Figure 3b). Alloys with a tin content of more than 30%, are expensive, and their properties are no better. Positive results have been obtained with an aluminum-tin alloy containing 0.88% titanium. The milling of the aluminum alloys with high tin content should be carried out at a temperature lower than the melting point of the eutectic, because at higher temperatures, the eutectic is pressed from the alloy. As milling speed, 4 - 5 m/min are recommended. In the table, the aging resistance of the aluminum-tin alloys is represented. Even the soft alloys are more resistant than babbitt metal (1.4 kg/mm<sup>2</sup>). For heavy-duty

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113-58-3-13/16

Application of Anti-Friction Aluminum Alloys in Engines

bearings in engines, special steel-aluminum bushes are employed, which are in many respects better than the lead bronze bushes. They bear pressures up to 280 kg/cm<sup>2</sup>. In Figure 5 and 6, aluminum bimetal bearings for engines are shown. The experiments have shown that aluminum-tin alloys are the best material for bearings. There are 6 figures, 1 table, and 15 references, 1 of which is Soviet, and 14 English.

AVAILABLE: Library of Congress

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1. Aluminum alloys-Applications
2. Aluminum-Tin alloys-Applications
3. Passenger vehicle engines-Design

REGIDZHANOVA, A.P., kand.tekhn.nauk; ZIL'BERG, Yu.Ya., kand.tekhn.nauk

Aluminum bimetallic bushings of repair size. Mekh.i elek.sots.  
sel'khoz. 17 no.6:23-27 '59. (MIRA 13:4)

1. Soyuznyy nauchno-issledovatel'skiy traktorny institut.  
(Bearings (Machinery))

BOGDICHANOVA, A.P., kand.techn.nauk; GIL'DMAN, Yu.Ye., kand.techn.nauk

~~Rapid fatigue~~ tests of antifriction alloys. [Trudy] NATI no.18:  
23-31 '59. (HIR: 12:7)

(Fatigue testing machines)



USHAKOV, A.D., kand.tekhn.nauk; BEGIDZHANOVA, A.P., kand.tekhn.nauk

Using plastics in the tractor industry. Trakt. i sel'khoz mash. 30  
no.9:39-44 S '60. (MIRA 13:9)

1. Nauchno-issledovatel'skiy avtotraktornyy institut.  
(Tractor industry) (Plastics)

BEGIDZHANOVA, A.P.; POPOV, S.N.; KHARACH, G.M.

Testing friction materials for the friction areas of tractors. Trakt.  
i sel'khoz mash. 31 no.8:15-17 Ag '61. (MIRA 14:7)

1. Nauchno-issledovatel'skiy avtotraktornyy institut (for Begidzhanova).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii  
sel'skogo khozyaystva (for Popov). 3. Institut mashinovedeniya  
AN SSSR (for Kharach).

(Tractors) (Friction)

BEGIDZHANOVA, A.P., kand.tekhn.nauk; POPOV, V.I., inzh.

Plastic fuel pipes for tractors. Trakt. i sel'khoz mash. 31 no.10:16-  
18 0 '61. (MIRA 14:12)

1. Nauchno-issledovatel'skiy avtotraktorny institut.  
(Tractors—Fuel systems)  
(Plastics)

BEGIDZHANOVA, A.P., kand.tekhn.nauk; KREYNDLIN, L.M., inzh.

Conference on the use of plastic materials in the manufacture of tractors. Trakt. i sel'khoz mash. 32 no. 7:32-35 J1 '62. (MIRA 15:7)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktorny institut.

(Tractors—Equipment and supplies) (Plastics)



BEGIDZHANOVA, A.P., kand.tekhn.nauk; KHARACH, G.M., inzh.; POPOV, S.N., inzh.

Results of testing friction members of tractors on the TIS-1 stand .

Trakt. i sel'khoz mash. 33 no.1:7-11 Ja '63.

(MIRA 16:3)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktorny institut (for Begidzhanova).
2. Institut mashinovedeniya AN SSSR (for Kharach).
3. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy tekhnologicheskiy institut remonta i ekspluatatsii mashinno-traktornogo parka (for Popov).

(Friction)

(Tractors--Testing)

BEGIDZHANOVA, A.P.; KREYNDLIN, L.M.; GORBUNOVA, V.G.; BARSHEYN, R.S.

Substituting plastic materials for copper in making low pressure fuel pipes. Trakt. i sel'khoz mash. 33 no.2:43-44 F '63. (MIRA 16:3)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktorny institut (for Begidzhanova, Kreyndlin). 2. Nauchno-issledovatel'skiy institut plastmass (for Gorbunova, Barsheyn).  
(Tractors—Fuel systems) (Pipe, Plastic)

BEGIDZHANOVA, A.P., kand. tekhn. nauk; KHARACH, G.M., inzh.  
POPOV, S.N., inzh.

Investigating asbestos friction disks in tractor units.  
Trakt. i sel'khoz mash. 33 no.10:12-14 0 '63.

(MIRA 17:1)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy  
traktorny institut (for Begidzhanova). 2. Institut mashino-  
vedeniya AN SSSR (for Kharach). 3. Gosudarstvennyy vsesoyuznyy  
nauchno-issledovatel'skiy tekhnologicheskii institut remonta  
i ekspluatatsii mashinno-traktornogo parka (for Popov).

BEGIDZHANOVA, A.P., ka d. tekhn. nauk; ZIL'BERG, Yu.Ya., kand. tekhn. nauk

Using plastic materials in the tractor industry. Trakt.  
i sel'khoz mash. no.5:37-39 My '64. (MIRA 17:6)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy  
traktorny institut.

ESOTDZHANVA, A.P.; LYUBIMOV, B.A.; PALLON, Ye.N.

Plastic substitutes for protective leather washers of  
hydraulic cylinders. Trakt. i sel'khoz mash. 31 no.7:14-17  
Jl '61. (MIRA 14:6)

1. Nauchno-issledovatel'skiy avtotraktornyy institut.  
(Washers (Mechanical engineering))

MARKMAN, A.L., doktor khim.nauk; KUCHKAREV, A.B., doktor khim.nauk;  
SALIMOVA, Kh., kand.tekhn.nauk; BEGIL'MAN, B.L., inzh.; KONEVA,  
Ya.A., inzh.; CHEBOTAREVA, A.P., inzh.; MASTOV, A.N., inzh.

More about technical specifications for cottonseeds. Masl.-zhir.  
prom. 26 no.12:5-9 D '60. (MIRA 13:12)

1. Sredneaziatskiy politekhnicheskiy institut (for Markman, Kuchkarev, Salimova).
2. Sredneaziatskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta shirov (for Begil'man, Koneva, Chebotareva).
3. Uzgipropishcheprom (for Mastov).  
(Cottonseed)

BEGIL'DEYeva, Ye. P.

Report on the work of the oncological service of a province polyclinic during the past 14 years (1947-1960). Akush. i gin. no.3: 99-101 '61. (MIRA 14:12)

1. Iz Moskovskogo oblastnogo nauchno-issledovatel'skogo instituta akusherstva i ginekologii (dir. - zasluzhennyy vrach O. D. Matspanova, nauchnyy rukovoditel' - prof. V. P. Mikhaylov)

(GENERATIVE ORGANS, FEMALE-CANCER)  
(MOSCOW PROVINCE-CANCER-HOSPITALS)

BEGIMBETOVA, D. Zh.

Some results of the study of gall-producing insects in southeastern Kazakhstan. Vest. AN Kazakh. SSR 21 no.5:52-57 My '65. (MIRA 18:7)



DEM'YANIKOV, I.G.; REGIMOV, T.

Quantitative determination of Sn, Cu, Pb in metallurgical  
products by secondary X-ray spectra. Trudy Inst. met. i obog.  
AN Kazakh. SSR 8:165-170 '63 (1971. 17:8)

DEM'YANIKOV, I.G.; KOPYLOVA, Yo.A.; BEGIMOV, T.B.

Effect of phase constitution on the results of analysis by secondary  
X-ray spectra. Trudy Inst. met. i obog. AN Kazakh. SSR 10:105-109 '64.  
(MIRA 18:7)

GOL'DENBERG, B.Ya.; FURSEV, P.; BEGININ, B.; KOTOMKINA, A.; CHIRLANOVA, H.,  
metodist; KOCHETOVA, T.

Exhibitions and displays of special items. Inform. biul. VDNKH no.8:  
11-15 Ag '64. (MIRA 17:11)

1. Starshiy inzh.-metodist razdela "Organizatsiya proizvodstva i upravleniya promyshlennymi predpriyatiyami" pavil'ona "Mashinostroyeniye" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Gol'denberg). 2. Direktor ob"yedinennykh pavil'onov "Toplivnaya promyshlennost' i geologiya" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Zubkov). 3. Glavnyy metodist pavil'ona "Toplivnaya promyshlennost'" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Beginin). 4. Glavnyy inzh.-metodist pavil'ona "Neftyanaya promyshlennost'" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Kotomkina). 5. Starshiy inzh.-metodist pavil'ona "Molochnaya promyshlennost'" na Vystavke dostizheniy narodnogo khozyaystva SSSR (for Kochetova).

44268

S/190/63/005/001/003/020  
B117/B186

5.3832  
5.36:0  
AUTHORS:

Durgaryan, A. A., Beginyan, R. M.

TITLE:

Heterochain copolymerization. (1) Copolymerization of epichlorohydrin with aceto- and benzonitriles

PERIODICAL:

Vysokomolekulyarnyye soyedineniya, v. 5, no. 1, 1963, 28-31

TEXT: This is the first communication on studies relating to the copolymerization of compounds in which the carbon is multiply bonded to atoms of other elements, compounds with strained rings and heteroatoms in the chain, their copolymerization with one another and with ethylene and diene compounds. The object was to find possibilities of producing polymers with heteroatoms in the chain and to establish the rules governing this reaction. The block copolymerization of epoxy compounds (epichlorohydrin) with nitriles (aceto- and benzonitriles) in the presence of tin chloride was studied at  $70 \pm 0.2^\circ\text{C}$ . It was proved by fractional precipitation of the reaction products that copolymers, not telomers, were formed. Either solid substances or viscous liquids were obtained, the former having a higher nitrogen content and higher molecular weight. Pure

Card 1/2

Heterochain copolymerization. ...

S/190/63/005/001/003/020  
B117/B186

homopolymer of epichlorohydrin could not be isolated. Nitriles were not polymerized under the conditions mentioned. They were less active than epichlorohydrin; benzonitrile was more active than acetonitrile. This was determined from the relative activities as calculated by the equation of F. R. Mayo and F. M. Lewis (J. Amer. Chem. Soc., 66, 1594, 1944):

epichlorohydrin and acetonitrile,  $r_1 = 4.2 \pm 0.4$ ,  $r_2 = 0 \pm 0.02$ ; epichlorohydrin and benzonitrile,  $r_1 = 2.8 \pm 0.2$ ,  $r_2 = 0 \pm 0.02$ . By saponification

and hydrolysis of the copolymers it was found that no new C-C bonds were formed during copolymerization. The nitrogen atom of the nitrile group seems to be bound to the carbon atom of the epoxy group, and the carbon atom of the nitrile group to the oxygen atom of the epoxy group. The principal chain of the copolymer must have the following structure:

... — C — N — (C — C — O)<sub>x</sub> — C — N — C — C — O — . There are 1 figure and 2 tables.

ASSOCIATION: Yerevanskiy gosudarstvennyy universitet (Yerevan State University)

SUBMITTED: July 12, 1961  
Card 2/2

DURGARYAN, A.A.; BEGINYAN, R.M.

Control of the composition of polymers by copolymerization catalysts.  
Vysokom.soed. 6 no.2:362-363 F '64. (MIRA 17:2)

L 57496-65 EMT(m)/EPT(c)/EPR/EMP(j)/T/EMA(c) Pc-L/Pr-L/Ps-L RPL WM/RM

ACCESSION NR: AP5015845

UR/0171/05/018/002/0139/0145  
541.64

AUTHOR: Durgaryan, A.A.; Beginyan, R.M.

TITLE: Heterogeneous-chain copolymerization. Part 2. Controlling influence of copolymerization catalysts on the composition of the copolymer

SOURCE: AN ArmSSR. Izvestiya, Khimicheskkiye nauki, v. 18, no. 2, 1965, 139-145

TOPIC TAGS: copolymerization, organoaluminum compound, catalytic polymerization, aluminum chloride, zinc chloride, acetonitrile, benzonitrile, epichlorohydrin, copolymer composition

ABSTRACT: The activity of acetonitrile and benzonitrile monomers in copolymerization with epichlorohydrin was studied as a function of the nature of the catalyst and medium. The most active copolymerization catalyst for acetonitrile and epichlorohydrin was found to be aluminum isopropoxide. The influence of heptane, carbon tetrachloride, and nitrobenzene on the rate of the copolymerization and on the composition and molecular weight of the copolymer was investigated. It was found that the copolymer composition changed only slightly as a function of the composition of the initial mixture and was controlled by the catalysts (aluminum isopropoxide, aluminum chloride, zinc

Card 1/2

L 57496-65

ACCESSION NR: AP5018845

chloride); i. e., an ideal controlling catalyst would keep the copolymer composition constant regardless of the composition of the initial mixture. An equation was derived for the composition of the copolymer which satisfies the experimental data obtained. Orig. art. has: 2 figures, 12 formulas and 4 tables.

ASSOCIATION: Problemnaya laboratoriya kinetiki polimerizatsionnykh protsessov, Yerevanskiy gosudarstvennyy universitet (Laboratory of Problems in the Kinetics of Polymerization Processes, Yerevan State University)

SUBMITTED: 28Nov83

ENCL: 00

SUB CODE: OC

NO REF/ SOV: 78

OTHER: 007

Card

2/2



L 00826-67 EWT(m)/EWP(j)/T IJP(c) WW/RM

ACC NR: AP6027765 (A) SOURCE CODE: UR/0190/66/008/008/1326/1329

AUTHOR: Durgaryan, A. A.; Beginyan, R. M.

32  
B

ORG: Yerevan State University (Yerevanskiy gosudarstvennyy universitet)

TITLE: Controlling the composition of a copolymer during copolymerization of epichlorohydrin with acetonitrile in the presence of various catalysts

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 8, 1966, 1326-1329

TOPIC TAGS: copolymerization, acetonitrile, zinc chloride, benzene, copolymer, polymerization catalyst

ABSTRACT: A study has been made of the bulk copolymerization of epichlorohydrin with acetonitrile in the presence of zinc chloride and aluminum isopropoxide and isobutoxide as catalysts. The copolymerization was conducted in solution and in bulk. The copolymer composition was found to be practically independent of the monomer ratio. The composition of the copolymer was affected by the catalysts used. Orig. art. has: 2 figures and 2 tables. [Based on authors' abstract] [NT]

SUB CODE: 07/ SUBM DATE: 20Feb65/ ORIG REF: 006/ OTH REF: 003

Card 1/1 fv

UDC: 66.095.26+678.13+678.55+678.745

MALYSHEV, G., kolkhoznik; VEBER, R.; ARKHIPOV, A.; BAGIROV, M.

Readers' letters. Sel'. stroi. 15 no.1:30 Ja '61.

(MIRA 14:3)

1. Sel'khozartel' "Put' Lenina" Kupinskogo rayona. Novosibirskoy oblasti (for Malyshev). 2. Starshiy prorab Gor'kovskogo Zernosovkhoza Kokchetavskoy oblasti (for Veber). 3. Instruktor Bol'shemurashkinskogo rayonnogo doma kul'tury Gor'kovskoy oblasti (for Arkhipov). 4. Vnesh-tatnyy korrespondent zhurnala "Sel'skoye stroitel'stvo" (for Bagirov).  
(Farm buildings)

REGISHEV, A.N.

Work of leaves of various agricultural plants in field  
conditions. Trudy Inst. fiziol. rast. 8 no.1:229-263 '53.  
(MLRA 6:12)

1. Stavropol'skaya sel'skokhozyaystvennaya opytnaya stantsiya.  
(Botany--Physiology)

BEGISHEV A.S.

ANDRONIKOV, Nikolay Grigor'yevich, kand.voyennykh nauk, dots., polkovnik;  
BEGISHEV, Aleksandr Semenovich, kand.voyennykh nauk, dots.,  
polkovnik; KALACHEV, Ivan Georgiyevich, kand.voyennykh nauk, dots.,  
polkovnik; KRASNOV, Izrail' Isayevich, kand.voyennykh nauk, dots.,  
polkovnik; TEREKHOV, Petr Vasil'yevich, kand.voyennykh nauk, dots.,  
polkovnik; ZYUZIN, N.M., polkovnik, red.; SOROKIN, V.V., tekhn.  
red.

[Armored and mechanized forces of the Soviet Army; a brief account of  
their development and battle experiences] Bronetankovyye i mekhanizirovannyye voyska Sovetskoy Armii; kratkiy ocherk razvitiya i boevogo puti. Moskva, Voenn. izd-vo M-va obor. SSSR, 1958. 263 p. (MIRA 11:5)  
(Russia--Army)

11(0)

SOV/93-58-9-6/17

AUTHOR: Begishov, F.A., Ivanova, M.M., Mamleyev, R.Sh., and  
Svishehev, B.S.

TITLE: The State of Development of the Romashkino Oilfield (O  
sostoyanii razrabotki Romashkinskogo mestorozhdeniya nefti)

PERIODICAL: Neftyanoye khozyaystvo, 1958, Nr 9, pp 32-39 (USSR)

ABSTRACT: The authors state that the general plan for the develop-  
ment of the D<sub>7</sub> formation at the Romashkinskoye mestorozhdeniye  
(Romashkino Oilfield) was prepared by the VNII Institute  
and approved by the Tekhsovet of the former MNP (Ministry  
of the Petroleum Industry) in February 1955. According to  
this plan the Romashkino Oilfield was divided by means of  
injection wells into 23 sectors (Fig. 1). The three central  
sectors, the Minibayevskaya, Abdurakhmanovskaya, and  
Pavlovskaya, and the four adjoining sectors, the Yuzhno-  
Romashkinskaya, Zelenogorskaya, Vostochno-Suleyevskaya, and  
Al'met'yevskaya are currently being developed while the re-  
maining sectors remain in the exploratory stage. The authors  
trace the development of the three central sectors and

Card 1/2

11(0)

80V/93-58-9-6/17

The State of Development (Cont.)

present data on the increase in water injection (Table 1) and on the variation in reservoir pressure (Table 2 and Fig. 2) at these sectors. They point out the shortcomings which have been disclosed during the development process, as well as the fact that the D<sub>1</sub> formation crops out (Fig. 3) making it impossible to simultaneously inject the water into all the strata. In March 1957 the Tsentral'naya komissiya po razrabotke neftyanykh i gazovykh mestorozhdeniy (Central Committee for the Development of Oil and Gas fields) approved measures for the elimination of these shortcomings. At present the TatNII Institute is investigating the possibility of organizing centralized water injection for the Pavlovskaya sector. The authors present data on the state of development of the three central sectors in April 1958 and conclude that the development basically proceeded according to plan. There are 3 figures, and 4 tables.

Card 2/2

BEGISHEV, F.A.; MINGAREYEV, R.Sh.; POLUYAN, I.O.; GORYUNOV, A.I.

Preliminary results of experimental studies carried out in the  
Bavly field. Geol.nefti i gaza 3 no.6:34-39 Je '59.  
(MIRA 12:8)

1. Neftyanoye upravleniye Tatrskogo soveta narodnogo khozyaystva.  
(Tatar A.S.S.R.--Oil fields--Production methods)

BEGISHEV, F.A.; VAKHITOV, G.G.; SULTANOV, S.A.; CHOLOVSKIY, I.P.

Controlling the development of horizon D<sub>1</sub> of the Romashkino oil field. Geol. nefti i gaza 7 no.10:22-26 0 '63.

(MIRA 17:10)

1. Tatarskiy neftyanoy nauchno-issledovatel'skiy institut,  
g. Bugul'ma.



BROD. I.O.; BEGISHEV, F.A.; GABRIEL'YAN, A.G.; OVANESOV, G.P.; SEYFUL'-  
MULYUKOV, R.B.; SHORNIKOV, B.Ya.; SHPIL'MAN, I.A.; KHANIN, I.L.

Oil and gas potential of the Volga-Ural region, the lower  
Volga Valley, and the Caspian salt-dome region as parts of  
the northern Caspian oil- and gas-bearing basin. [Trudy]  
NILneftegaza no.10:5-16 '63. (MIRA 18:3)

1. Nauchno-issledovatel'skaya laboratoriya geologicheskikh kriteriyev  
otsenki perspektiv neftegazonosnosti; Upravleniya neftyanoy i gazovoy  
promyshlennosti Verkhne-Volzhskogo i Sredne-Volzhskogo sovetov  
narodnogo khozyaystva i i Orenburgskoye geologicheskoye upravleniye.

BEGISHEV, F.N.

Methods for the development of an automated loom of a new type with pulsed pick of the thread guide. Izv. vys. ucheb. zav.; tekhn. tekst. prom. no.1:110-116 '64. (MIRA 17:5)

1. Leningradskiy institut tekstil'noy i legkoy promyshlennosti imeni Kirova.

KHASANOV, S.; RAKHIMOV, V.; KHASANOV G.; BEGISHEV, Kh.; SHARAFUTDINOV, S.;  
KHUSANKHUZHAYEV, I.; ZHURAYEV, M., redaktor; ZHALOLOV, Zh., redaktor;  
UMANSKIY, P.A., tekhnicheskiy redaktor.

[Collective farm chairman's handbook] Kolhoz raislari uchun sparavoch-  
nik. Tashkent, Uzbekiston SSR darlat nashrieti, 1956, 915 p. [In Uzbek]  
(MLRA 10:5)

(Collective farms)

ASLANOV, Kh.A.; SADYKOV, A.S.; BEGISHEVA, A.I.

Alkaloids from *Sophora alopecuroides*. Nauch.trudy TashGU no.263.  
Khim.nauki no.13:20-23 '64. (MIRA 18:8)

REGISHVILI, G.R.

Changes in the resistance of dermal capillaries due to different influences on the palatine tonsils [with summary in English].

Vest.oto-rin. 20 no.6:77-84 N-D '58

(MIRA 11:12)

1. Iz kafedry bolezney ukha, gorla, i nosa (zav. - prof. S.N. Rzechinashvili) Tbilisskogo instituta usoverhsenstvovaniya vrachey.

(TONSILLITIS, physiol.

skin capillary resists. in cond. of different influences on tonsils (Rus))

(CAPILLARIES, physiol.

same (Rus))

BEGISHVILI, G. R., Cand Med Sci -- (diss) "Resistance of skin capillaries in chronic tonsillitis." Tbilisi, 1960. 19 pp; (Tbilisi State Medical Inst); 200 copies; price not given; (KL, 28-60, 164)

BEGISHVILI, G.R.

Goiter of the radix linguae. Zhur. ush., nos. i gorl. bol. 19  
no. 5:75-7; 3-0 '59. (MIRA 14:10)

1. Iz kafe'ry bolezney ukha, gorla i nosa (zav. - prof. S.N.  
Khechinashvili) Tbilisskogo instituta usovershenstvovaniya vrachev.  
(GOITER) (TONGUE--DISEASES)

BEGISHVILI, K. R.

Cand. Geogr. Sci.

"Physical-Geographic Conditions of Formation of Silt-Stone Erosion Streams,"  
Vest. AS USSR, p. 103, May 1949

a report presented to the 1st Conference on the Study of Erosion Streams, Inst.  
Geog., AS USSR



BEGISHVILI, K.R.

New data on the movement of mud and stone flows. Trudy Geog. ob-va  
Grus. SSR 5:41-54 '59. (MIRA 13:11)  
(Georgia--Landslides)

BERUCHEV, G.M.; BEGISHVILI, K.R.; FLEYSIMAN, S.M.

Main types of flash floods and peculiarities of structural mud floods.  
Izv. AN SSSR. Ser. geog. no.6:24-28 N-D '60. (MIRA 13:10)

1. Gosudarstvennyy institut proyektirovaniya vodnogo khozyaystva  
GruzSSR, Gruzinskiy pedagogicheskiy institut im. A.S. Pushkina i  
Nauchno-issledovatel'skiy institut transportnogo stroitel'stva.  
(Floods)

BEGISHVILI, K.R.

Qualitative definition and some quantitative features of mud  
and stone flows. Trudy Geog. ob-va Gruz. SSR 7:91-98 '63.  
(MIRA 18:5)

DERKACHEV, A.A.; BIBARSOVA, D.G.; REGIYEV, B.B.

Solution of some problems of the dynamic stability  
of thin-walled rods. Trudy Inst. seism. stroi. i  
seism. 9:119-136 '61. (MIRA 15:11)  
(Elastic rods and wires)

REGIYEV, B. B.

Seismic forces and deformations in the process of earthquakes  
calculated by means of electronic computers. Biul. Sov. po  
seism. no.14:114-121 '63. (MIRA 16:4)

(Earthquakes and building)  
(Electronic computers)

BEGIZOV, A.D.; RYABININ, P.I.

Filmstrips and motion pictures. Meteor. i gidrol. no.6:40 Je '56.  
(Motion pictures in meteorology) (MLRA 9:9)

1. BEGIZOV, T. I.; SHAPIRO, S. Kh.
2. USSR (600)
4. Karakul Sheep
7. Revision of the standard for karakul pelts (2-3 days), Kar. i zver., 6,  
no. 2, 1953.

KUZNETSOV, M.M.; BEGIZOV, T.Kh., traktorist; GRIGOR'YEVA, N., montazhmitsa  
(Novosibirsk); VITCHUKOV, N.I., svinar'

Statements by deputies. Mast. prom. i khud. promys. no.5:1  
My '63. (MIRA 16:7)

1. Pervyy sekretar' Primorskogo sel'skogo krayevogo komiteta  
Kommunisticheskoy partii Sovetskogo Soyuza (for Kuznetsov).
2. Kolkhoz im. Kirova, Severo-Osetinskoy ASSR (for Begizov).
3. Sovkhoz "Krasnoufimskiy" (for Vitchukov).  
(Service industries)



BEGLYAN, A.G.; MKRTCHYAN, L.N.

Experimental data on the reproduction of verrucous endocarditis by  
heterogenic splenic DNA. Izv. AN Arm. SSR. Biol. nauki 17 no.10:59-  
64 0 '64. (MIRA 18:8)

1. Yerevanskiy meditsinskiy institut, kafedry patologicheskoy  
anatomii.

BEOLORYAN, A.G. (Yerevan)

Rheumatic injuries of the skin and lungs. Arkh.pat., Moskva 12 no.2:  
85-89 Mar-Apr 50. (GLML 19:4)

1. Of the Department of Pathological Anatomy (Head -- Academician  
A.I.Abrikosov) of the First Moscow Order of Lenin Medical Institute,  
Moscow.

BEGLYAN, A. S.

"Histomorphology of the Tracheobronchial Tree in Nonspecific Lung Diseases." Sub 9 Oct 51, Acad Med Sci USSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

BEGLARYAN, A.G.

Age histomorphology of the tracheobronchial tree. Izv. AN Arm. SSR.  
Biol. i sel'khoz. nauki 6 no.2:17-28 '53. (MLBA 9:8)

1. Institut ortopedii i vosstanovitel'noy khirurgii Ministerstva  
sdravookhraneniya Armianskoy SSR.  
(RESPIRATORY ORGANS) (MUCOUS MEMBRANE)

BEGIARYAN, A. G., KYANDARYAN, K. A. and PAFOYAN, S. A.

"Hystomorphology of the Nervous System in Acute Experimental Radiation Sickness."  
a report presented at the Transcaucasian Radiological Conference, Tbilisi, 28-31  
Oct.55.

Sum. No. 1047, 31 Aug 56

*BEGLYAN, A.G.*

USSR/Human and Animal Morphology (Normal and Pathological)  
Periphereal Nervous System

S-3

Abs Jour : Ref Zhur - Biol., No 12, 1958, No 55113

Author : Beglyan, A.G., Kyndryan N.A., Papoyan S.A.

Inst : ~~Not Given~~

Title : Histomorphology of the Nervous System in Experimentally  
Induced Acute Radiation Sickness.

Orig Pub : Tr. 1-y Zakevkezhsk. konforentsii po mod. radiob. Tbilisi,  
Gruzmodgiz, 1956, 148-150

Abstract : After some animals were irradiated, morphological characteristics of their reflex arc, reaching from the receptors to the cerebral cortex, were examined. A fragmentation of the sensory nerve fiber axons was disclosed, as well as a vacuolization of the myelinous membrane. A partial fraying of the neurofibrils occurs in the Renshaw fibers of the cortex arc, accompanied by their fragmentation. A polymorphism of the ganglionic cells takes place in the intervertebral nodules. Kariocytosis and shadow cells are found in various sections

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*BEGLYARYAN, A.G.*  
USSR/Morphology of Man and Animals - (Normal and Pathologic).  
The Nervous System.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 12378

Author : Avakyan, N.M., Beglyaryan, A.G.

Inst : Histologic Morphology of the Central Nervous System of  
Title : Young Children after Sudden Death from Acute Inflammatory  
Processes in Respiratory Organs.

Orig Pub : Sb. tr. Byuro gl. sudchno - med. ekspertizy i Kafedry  
sudchn. med. Yerevansk. med. in-ta, 1956, vyp. 1, 101-104

Abstract : In 10 cases of sudden death there were pronounced hemodyna-  
mic changes in all parts of the CNS: plethora, stasis with  
perivascular edema, extravasations, infrequent hemorrhages,  
and a significant widening of perivascular spaces. Changes  
in ganglion cells were weakly expressed and were observed  
only in scattered cells. In 25 cases of death after brief  
illness there were more pronounced hemodynamic changes in

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any-  
in the cere-  
separated in the deeper  
unequal functional state of the

USSR/Morphology of Man and Animals - (Normal and Pathologic).  
The Nervous System.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 12378

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cells. In 7 cases serous meningoencephalitis was revealed,  
which was considered to be a complication of the pulmonary  
process. Nerve cell changes resulting from hypoxia and to-  
xicosis cause hemodynamic and a series of autonomic disor-  
ders; the latter aggravate the pulmonary process, which,  
in turn, increases hypoxia and leads to depression of the  
body's reactivity.

*Excerpt from...*  
ARUTYUNOV, A.A., professor; GYULKHASYAN, A.A.; SHUKURYAN, K.G., kandidat  
meditsinskikh nauk; AGARONYAN, Dzh.A., kandidat meditsinskikh nauk;  
BEGLIARYAN, A.G., dotsent

[Some experimental data on the pathogenesis of tonsillitis. Vest.  
oto-rin. 18 no.5:17-22 S-O '56.  
(MLRA 9:11)

1. Iz kliniki bolezney ukha, gorla i nosa (sav. - prof. A.A.Arutyunov),  
iz kafedry mikrobiologii (sav. - dotsent V.T.Gabrielyan) Erevanskogo  
meditsinskogo instituta.

(TONSILLITIS, exper.  
pathogen, develop. in dogs & rabbits)



USSR/Human and Animal Morphology. Respiratory System

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Abs Jour: Ref Zhur - Biol., No 19, 1956, 88352

Author : Beglaryan, A. G.

Inst : Not Given

Title : The Histomorphology of the Tracheobronchial Tree  
in Non-specific Diseases of the Lungs

Orig Pub: Arkhiv patologii, 1956, 18, No. 8, 55-62

Abstract: Various segments of the tracheobronchial tree (TBT) were studied histologically in 29 practically healthy subjects, in 16 children with acute inflammatory processes in the lungs, and in 9 men with chronic lung diseases. It was demonstrated that the wall of the TBT changes considerably with age, which leads to disturbances of its barrier function; infiltrations appear in the mucosa of the TBT. In acute pulmonary diseases catarrhal, catarrhal-mucous or desquamating tracheobronchitis were observed, with

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BEGLARJAN, A.G.

**AUTHOR:** KJANDARJAN, K.A., PAPOJAN, S.A., BEGLARJAN, A.G., ZAGAZAJA, A.A., ARUTJUNJAN, R.K. PA - 2099

**TITLE:** The Functional and Morphological Modifications of the Cerebrum by the Action of Ionizing Rays. (Russian)

**PERIODICAL:** Doklady Akademii Nauk SSSR, 1957, Vol 112, Nr 2, pp 249-252 (U.S.S.R.)  
Received: 3 / 1957 Reviewed: 4 / 1957

**ABSTRACT:** The present work deals with the results of parallel and experimental investigations of the functional and morphological modifications of the cerebrum caused by the action of ionizing radiations. The clinical part of the work comprises observations made as to the total reaction and electroencephalographic changes which were found to occur in the course of radiation treatment carried out on patients with newly formed parts of their skin on the upper half of the face and of the hairy part of the head. 40 patients were examined who were given treatment with radio-active cobalt, encephalography was carried out in the case of 20 patients. Irradiation was carried out by the application-distance-method, and in part of the cases by the method of introducing the needles with the radio-active cobalt into the interior of the ulcers. All patients remained fit for work in spite of a marked local skin reaction both during and after irradiation. Most of the patients showed signs of sleepiness. In the course

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The Functional and Morphological Modifications of the Cerebrum  
by the Action of Ionizing Rays. (Russian)

of encephalographic examinations  $\delta$ -waves of 0,4 - 0,8 sec duration occurred in the case of most patients, and further, a decrease of the amplitude of biopotentials, a hemisphere-like asymmetry, and also a reduction of the reactivity of the cerebral cortex were found. These as well as other symptoms were found to be most marked in the course of the first 24 hours after irradiation. After ten and more days the encephalogram became normalized. Thus, the changes of the biopotential of the patients are, to a certain extent, of functionally reversible character, which probably depends on the partly suppressed activity of indene.

The experimental part of the work comprises the observations of the entire reaction and of the encephalographic change occurring in the case of rabbits suffering from the effects of irradiation as long as they are still alive, and further also pathologo-anatomical examinations of their nervous systems, particularly of their brains. In the case of animals radiation sickness was caused in two ways: 1) by total irradiation with X-rays with 1000 r, 2) by irradiation of forehead and crown by means of applicators with radio-active cobalt. A total of .

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The Functional and Morphological Modifications of the Cerebrum  
by the Actions of Ionizing Rays. (Russian)

40 rabbits was examined.

Already in the course of the first few minutes after irradiation  
certain functional and morphological changes began to manifest  
themselves in the animals, which then developed to a complex of  
the symptoms of an acute radiation sickness. All details were  
discussed. The damage found to have been caused is not of  
diffuse, but of selective character.

ASSOCIATION: Institute of Scientific research for Radiology and Oncology  
of the Ministry of Health of the Armenian SSR

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